

Notice of Allowability

Application No.

10/615,286

Examiner

Matthew B. Smithers

Applicant(s)

ISHIDOSHIRO, TAKASHI

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed April 3, 2007.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Steve Beyer on June 7, 2007.

The application has been amended as follows:

IN THE CLAIMS:

1. (Currently Amended) An encryption key setting system that sets an encryption key, which is used to encrypt radio communication data transmitted between an access point and a relay station for a wireless LAN and a terminal equipped with a device for connecting with the wireless LAN prior to the transmission, in said terminal, said encryption key setting system comprising:

an instruction module ~~unit with an operating unit, which~~ is provided at said access point and that gives instructions to start setting said encryption key ~~by operating the operating unit;~~

a communication range restriction module that restricts a radio communication range between said access point and said terminal to be narrower than a general communication range; and

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an encryption key setting module that, while the radio communication range is restricted by said communication range restriction module, transmits encryption key data representing the encryption key by wireless between said terminal and said access point located within the restricted radio communication range, so as to ~~set the~~ facilitate setting said encryption key at said terminal.

2. (Currently Amended) An encryption key setting system in accordance with claim 1, said encryption key setting system further comprising;

~~an instruction module that gives an instruction to start setting of the encryption key; and~~

a condition specification module that specifies a condition of restricting the radio communication range to be narrower than the general communication range, based on the instructions given by said instruction module,

wherein said communication range restriction module restricts the radio communication range under the condition specified by said condition specification module.

7. (Currently Amended) An access point that is a relay station for a wireless LAN and establishes wireless communication with a terminal equipped with a device for connecting with the wireless LAN, said access point encrypting radio communication data as an object of communication with a preset encryption key, prior to wireless communication with said terminal, and transmitting the encrypted radio communication data to and from said terminal by wireless, said access point comprising:

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an instruction module that ~~unit with an operating unit, which~~ gives instructions to start setting said encryption key ~~by operating the operating unit~~;

a communication range restriction module that restricts a radio communication range between said access point and said terminal to be narrower than a general communication range; and

an encryption key setting module that, while the radio communication range is restricted by said communication range restriction module, transmits encryption key data representing the encryption key by wireless to and from said terminal located in the restricted radio communication range, so as to ~~set the~~ facilitate setting said encryption key at said terminal.

8. (Currently Amended) An encryption key setting method that sets an encryption key, which is used to encrypt radio communication data transmitted between an access point as a relay station for a wireless LAN and a terminal equipped with a device for connecting with the wireless LAN prior to the transmission, in said terminal, said encryption key setting method comprising the steps of:

(a) giving instructions ~~operating an instruction unit that is provided at the access point~~ to start setting said encryption key;

(b) restricting a radio communication range between said access point and said terminal to be narrower than a general communication range; and

(c) while the radio communication range is restricted in said step (b), transmitting encryption key data representing the encryption key by wireless between said terminal

and said access point located within the restricted radio communication range, so as to ~~set the~~ facilitate setting said encryption key at said terminal.

9. (Currently Amended) An authentication code setting system that sets an authentication code, which is required when a terminal equipped with a device for connecting with a wireless LAN establishes wireless communication with an access point as a relay station for the wireless LAN to gain access to preset data on a network, in at least one of said terminal and said access point, said authentication code setting system comprising:

an instruction module ~~unit with an operating unit, which is provided at said access point and that~~ gives instructions to start setting said authentication code ~~by operating the operating unit;~~

a communication range restriction module that restricts a radio communication range between said access point and said terminal to be narrower than a general communication range; and

an authentication code setting module that, while the radio communication range is restricted by said communication range restriction module, transmits data representing the authentication code by wireless between said terminal and said access point located within the restricted radio communication range, so as to ~~set the~~ facilitate setting said authentication code at said terminal.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: The present invention is directed to a system for preventing leakage of encryption information in a wireless communication environment. Each of the independent claims identify the uniquely distinct features of "a communication range restriction module that restricts a radio communication range between said access point and said terminal to be narrower than a general communication range; and an encryption key setting module that, while the radio communication range is restricted by said communication range restriction module, transmits encryption key data representing the encryption key by wireless between said terminal and said access point located within the restricted radio communication range, so as to facilitate setting said encryption key at said terminal". The closest prior art, Cotton (US 6,148,205) and Ladas et al (US 20040168081), disclose systems for establishing secure wireless radio communications but fails to anticipate or render the underlined limitations obvious.

Conclusion

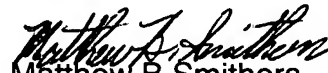
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B. Smithers whose telephone number is (571) 272-3876. The examiner can normally be reached on Monday-Friday (8:00-4:30) EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L. Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Matthew B Smithers
Primary Examiner
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